RECEIVED CENTRAL FAX CENTER MAY 1 4 2007

Amendment and Response Serial No.: 10/809,660 Confirmation No.: 7495

Page 6 of 7.

Filed: March 25, 2004

For: ELECTROSPRAYING APPARATUS AND METHOD FOR COATING PARTICLES

Remarks

The Office Action mailed February 12, 2007 has been received and reviewed. Claim 99 has been amended to remove the "71." at the end thereof, and claims 71-80 have been canceled, without prejudice. Therefore, the pending claims are claims 81-99. Reconsideration and withdrawal of the rejections are respectfully requested in view of the amendments and remarks provided herein.

Information Disclosure Statement

Applicants filed an Information Disclosure Statement on September 10, 2004 (enclosed as Exhibit A). To date, Applicants have not received an initialed 1449 form from the Examiner, acknowledging that this Information Disclosure Statement was reviewed. If copies of the documents cited are needed, please advise the Applicants accordingly and duplicate copies will be provided.

Objection to Claim

Claim 99 was objected to because of a typographical error. Such error has been corrected.

Double Patenting Rejection

Claims 81-99 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 19, 21, 22, 26, 29 and 36 of U.S. Patent No. 6,399,362, as follows: instant claims 81, 82 and 85-88 over patented claim 19; instant claims 83 and 84 over patented claims 21; instant claims 89, 90 and 92 over patented claims 22, 26, and 36, respectively; and instant claims 91 and 93-99 over patented claim 29.

A Terminal Disclaimer which, Applicants submit, is in compliance with 37 CFR 1.321(c) and thereby obviates the Examiner's double patenting rejection of pending claims 81-99.

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Amendment and Response

Serial No.: 10/809,660 Confirmation No.: 7495 Filed: March 25, 2004

For: ELECTROSPRAYING APPARATUS AND METHOD FOR COATING PARTICLES

Summary

It is respectfully submitted that the pending claims are in condition for allowance and notification to that effect is respectfully requested. The Examiner is invited to contact Applicants' Representatives, at the below-listed telephone number, if it is believed that prosecution of this application may be assisted thereby.

Respectfully submitted

Bv

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Customer Number 26813

19 May 2001

Mark J. Gebhardt

Reg. No. 35,518

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CERTIFICATE UNDER 37 CFR §1.8:

The undersigned hereby certifies that the Transmittal Letter and the paper(s), as described hereinabove, are being transmitted by facsimile in accordance with 37 CFR §1.6(d) to the Patent and Trademark Office, addressed to Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450,

By: X

ne:

Sandy Truehart

EXHIBIT A



Receipt is hereby acknowledged for the following in the U.S. Patent and Trademark Office:

Applicant(s):

David Y.H. Pul et al.

Serial No.: Filed:

10/809,660 March 25, 2004

Confirmation No. 7495

Title:

ELECTROSPRAYING APPARATUS AND METHOD FOR

COATING PARTICLES

Enclosed: Information Disclosure Statement (3 pgs); copy of one application with preliminary amendment; 1449 forms (6 pgs); copies of 47 documents cited on the 1449 form; and transmittal document (in triplicate).

Mailed:

9-10-04

Docket: 110.0050 0104

MJG/sjt

Receipt is hereby acknowledged for the following in the U.S. Patent and Trademark Office:

Applicant(s):

David Y.H. Pui et el.

Serial No.:

10/809,660

Filed:

Merch 25, 2004

Confirmation No. 7495

Title:

ELECTROSPRAYING APPARATUS AND METHOD FOR

COATING PARTICLES

Enclosed: Information Disclosur transfer (3 pgs); copy of one application with preliminary successful and the state of 47 documents cited on the 1449 To The coment (in triplicate).

Mailed:

Docket: 110.0050 0104

MJG/sjt

PAGE 9/21 * RCVD AT 5/14/2007 3:01:27 PM [Eastern Daylight Time] * SVR:USPTO-EFXRF-3/14 * DNIS:2738300 * CSID:6123051228 * DURATION (mm-ss):06-02

OPY

IN THE UNIT. STATES PATENT AND TRADEMAR. JFFICE

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PUI et al.

Group Art Unit:

1762

Serial No .:

10/809,660

An itemized return postcard.

Examiner:

Unknown

Filed:

March 25, 2004

Docket No.: Confirmation No.: 110.00500104

7495

Title:

<u>x</u>

ELECTROSPRAYING APPARATUS AND METHOD FOR COATING PARTICLES

Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

We are transmitting the following documents along with this Transmittal Sheet (which is submitted in triplicate):

X An Inform forms (6: A check in A certified under 35 Other:	n for Extension of Ti mation Disclosure Sta pgs); and copies of 4 n the amount of S d copy of a applica U.S.C. §119.	atement (3 pgs); cop 7 documents cited o _, for ation, Serial No,	y of one application n the 1449 forms. filed,	with preliminary	amendment; 1449 y of which is claimed
	Fee Calc	ulation for Claims	Pending After Am	endment	
	Pending Claims after Amendment (1)	Claims Paid for Earlier (2)	Number of Additional Claims (1-2)	Cost per Additional Claim	Additional Fees Required
Total Claims				x \$18 =	
Independent Claims				x \$86 =	
Оле ог	More New Multiple	Dependent Claims I	Presented? If Yes, A	Add \$290 Here →	
			Total Additional Cla	im Fees Required	

Please consider this a PETITION FOR EXTENSION OF TIME for a sufficient number of months to enter these papers and please charge any additional fees or credit overpayment to Deposit Account No. 13-4895. Triplicate copies of this sheet are enclosed.

MUETING, RAASCH & GEBHARDT, P.A.

Customer Number: 26813

Mark J. Gebhardt

Reg. No.:35,516 Direct Dial: 612-305-1216 Facsimile: 612-305-1228

(LARGE ENTITY TRANSMITTAL UNDER RULE 1.8)

MUETING RAASCH GEBHARDT

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MAY 1 4 2007 _

Docket No. 110,00500104

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Pui et al.)	Group Art Unit:	1762 CODV
Serial No.: 10/809,600	Ś	Examiner:	Unassigned
Confirmation No.: 7495	į	•	
Filed: March 25, 2004)		
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For ELECTROSPRAYING APPARATUS AND METHOD FOR COATING PARTICLES

INFORMATION DISCLOSURE STATEMENT

Mail Stop Amendment Assistant Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

In compliance with the duty imposed by 37 C.F.R. § 1.56, and in accordance with C.F.R. §§ 1.97 et. seq., the materials enclosed herewith are brought to the attention of the Examiner as possibly being of interest in connection with the above-identified patent application. Per M.P.E.P. § 609, the information cited in the present Information Disclosure Statement shall not be construed to be an admission that the information is, or is considered to be, material to patentability. Consideration of each of the documents listed on the attached 1449 forms is respectfully requested. Pursuant to the provisions of M.P.E.P. §609, Applicants further request that a copy of the 1449 forms, marked as being considered and initialed by the Examiner, be returned with the next Official Communication.

Applicants also wish to bring the Examiner's attention to the following pending U.S. Applications, as well as any documents, Office Actions that may include rejections of similar claims, and any provisional U.S. patent applications referenced in the pending U.S. applications or in their file wrappers. A copy of each of the below-listed pending U.S. Patent Applications is provided herewith.

Information Disclosure Statement

Applicants: Pui et al. Serial No.: 10/809,660 Confirmation No.:7495 Filed: March 25, 2004

FOI: ELECTROSPRAYING APPARATUS AND METHOD FOR COATING PARTICLES

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List of Pending Non-Published U.S. Patent Applications

Applicant(s)	Application Number	Filing Date	Serial No. of Provisional Application to which listed Application claims priority
PUI et al. (110.01320102)	10/889,341	07/12/04	60/204,238

This application is a divisional of U.S. Patent Application Serial No. 10/162,031, filed June 3, 2002, issued as U.S. Patent No. 6,746,869 which is a continuation of U.S. Patent Application Serial No. 09/577,747, filed May 23, 2000, issued as U.S. Patent No. 6,399,362, which is a divisional of U.S. Patent Application Serial No. 09/092,794, filed June 5, 1998, issued as U.S. Patent No. 6,093,557, which claims benefit of U.S. Provisional Patent Application Serial No. 60/049,444, filed June 12, 1997. In accordance with 37 C.F.R. §1.98(d), copies of documents previously cited by or submitted to the U.S. Patent and Trademark Office in connection with Applicants' prior application(s) listed above, are not included herewith.

It is believed that no fee is due, as this Information Disclosure Statement is filed prior to the receipt of any Action on the merits. However, in the event a fee is due, please charge any fee or credit any overpayment to Account No. 13-4895.

Information Disclosure Statement

Applicants: Pur et al. Serial No.: 10/809,660 Confirmation No.:7495 Filed: March 25, 2004

For: ELECTROSPRAYING APPARATUS AND METHOD FOR COATING PARTICLES

Page 3 of 3



The Examiner is invited to contact Applicants' Representatives at the below-listed telephone number, if they can be of any assistance during prosecution of the present application.

CERTIFICATE UNDER 37 C.F.R. 1.8:

Name: 1) 1/ Coloredt

10 Sept, 2004

MJG/sjt

Respectfully submitted for Pui et al., PUI et al.

By Mueting, Raasch & Gebhardt, P.A. P.O. Box 581415

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Mark J. Gebhardt Reg. No. 35,518

Direct Dial (612)305-1216

Page I of 6

INFORMATION DISCLOSURE STATEMENT Atty. Docket No.: 110.00500104

Serial No.: 10/809,660

Applicants: Pui et al.

Confirmation No.: 7495

Application Filing Date: March 25, 2004

Group: 1762

Information Disclosure Statement mailed: September 10, 2004

U.S. PATENT DOCUMENTS



Examiner Initial	Copy Enclosed	Document Number	Date	Nome Nome	Chasa	Subclass	Filing Date If
		3,521,125	07/21/70	Nelson			
		3,608,823	09/28/71	Buschor			
		3,654,534	04/04/72	Fischer			
		4,002,777	01/11/77	Juvinall et al.			
•		4,039,145	08/02/77	Felici et al.			
		4,265,641	05/05/81	Natarajan			
		4,328,940	05/11/82	Malcolm			
		4,414,603	11/08/83	Masuda ·			
		4,476,515	10/09/84	Coffee			
		4,578,290	03/25/86	Komon et al.			
		4,634,057	01/06/87	Coffee et al.	<u> </u>	1	
		4,659,012	04/21/87	Coffee		-	
		4,748,043	05/31/88	Seaver et al.			
		4,795,330	01/03/89	Noakes et al.			
		4,846,407	07/11/89	Coffee et al.			
		4,945,050	07/31/90	Sanford et al.			
		5,036,006	07/30/91	Sanford et al.			
		5,044,564	09/03/91	Sickles			
		5,066,587	11/19/91	Jones et al.			
		5,091,205	02/25/92	Fan			
		5,100,792	03/31/92	Sanford et al.			
		5,120,657	06/09/92	McCabe et al.			
		5,141,131	08/25/92	Miller, Jr. et al.			

EXAMINER	Date Considered
	-
*Examiner: Initial if citation considered, whether or not citation is in co conformance and not considered. Include copy of this form with next co	oformance with MPEP 609; Draw line through citation if not in

Page 2 of 6

INFORMATION DISCLOSURE STATEMENT

Atty. Docket No.: 110.00500104

Applicants: Pui et al.

Confirmation No.: 7495

Application Filing Date: March 25, 2004

Information Disclosure Statement mailed: September 10, 2004

Exeminer Initial	Copy Enclosed	Document Number	Date	Name	Class	Substass	Ding Ding
<u></u>		5,149,655	09/22/92	McCabe et al.			
		5,179,022	01/12/93	Sanford et al.			
	,	5,204,253	04/20/93	Sanford et al.			
		5,219,746	06/15/93	Brinegar et al.			
		5,222,663	06/29/93	Noakes et al.			
		5,240,842	08/31/93	Mets	-		
		5,247,842	09/28/93	Kaufman et al.			
		5,354,556	10/11/94	Sparks et al.			
		5,371,015	12/06/94	Sanford et al.			,
		5,433,865	07/18/95	Laurent			
		5,457,041	10/10/95	Gînaven et al.			
		5,475,228	12/12/95	Palathingal			
		5,478,744	12/26/95	Sanford et al.			
		5,506,125	04/09/96	McCabe et al.			
		5,516,670	05/14/96	Kuehnle et al.			
		5,525,510	06/11/96	McCabe et al.			
		5,584,807	12/17/96	McCabe			
		5,621,605	04/15/97	Inaba et al.			
		5,655,517	08/12/97	Coffee			
		5,683,556	11/04/97	Nomura et al.			
		5,685,482	11/11/97	Sickles			-
		5,702,754	12/30/97	Zhong			_
		5,807,436	09/15/98	Stachelhaus et al.			
		5,813,614	09/29/98	Coffee			

EXAMINER	Date Considered
*Examinert Initial if citation considered, whether conformance and not considered. Include conve	er or not citation is in conformance with MPEP 609; Draw line through citation if not in

Page 3 of 6

INFORMATION DISCLOSURE STATEMENT

Atty. Docket No.: 110.00500104 Serial No.: 10/809,660

Applicants: Pui et al. Confirmation No.: 7495

Application Filing Date: March 25, 2004 | Group: 1762

Information Disclosure Statement mailed: September 10, 2004

Examiner Initial	Copy Enclosed	Document Number	Date	Name	Class	Subclass	Filing Date If
		5,837,313	11/17/98	Ding et al.			
		5,846,595	12/08/98	Sun et al.			ST ASSESSED AND
		5,866,400	02/02/99	Palsson et al.			
		5,873,523	02/23/99	Gomez et al.	 		
		5,897,911	04/27/99	Loeffler		<u> </u>	
		5,915,377	06/29/99	Coffee			
		5,973,904	10/26/99	Pui et al.	 		
		5,980,972	11/09/99	Ding			
		5,992,244	11/30/99	Pui et al.		<u> </u>	
		6,068,199	05/30/00	Coffee		1 "-	
		6,074,688	06/13/00	Pletcher et al.		 	
		6,093,557	07/25/00	Pui et al.			
		6,105,571	08/22/00	Coffee ,			
		6,105,877	08/22/00	Coffee			
		6,120,847	09/19/00	Yang et al.			
		6,143,370	11/07/00	Panagiotou et al.			
		6,145,391	11/14/00	Pui et al.			
		6,093,557	04/25/00	Pui et al.			
		6,251,136	06/26/01	Guruwaiya et al.			
		6,252,129 B1	06/26/01	Coffee			
		6,364,903	04/02/02	Tseng et al.		_	
		6,368,658	04/09/02	Schwarz et al.		 	
		6,399,362 B1	06/04/02	Pui et al.		 	
		6,419,692	07/16/02	Yang et al.			

EXAMINER	Date Considered
*Examiner: lawial if citation considered, whether or not citation is in e conformance and not considered. Include copy of this form with next c	onformance with MPEP 609; Draw line through citation if not in ommunication to applicant.

INFORMATION
DISCLOSURE
STATEMENT
Applicants: Pui et al.
Application Filing Date: March 25, 2004
Information Disclosure Statement mailed: September 10, 2004

Examiner Initial	Copy Enclosed	Document Number	Date	Name	Class	Subclass	Filing Date If
		6,419,745	07/16/02	Burkett et al.			
		6,746,869	06/08/04	Pui et al.			
		6,764,720	07/20/04	Pui et al.	<u> </u>		
		2003/0143315A1	07/31/03	Pui et al.			····

FOREIGN PATENT DOCUMENTS

Examiner Initial	Сору	Document Number	Date	Country	Class	Subclass	Translation	
	Enclosed	<u> </u>			ļ		Yes	No
	~	1052695 A	03/18/93	CN (w/Abstract)				
	1	198 46 656 A1	04/29/99	DE (w/Abstract)				
	1	199 09 333 A1	11/11/99	DE (w/Abstract)				
	>	0 234 841 A2	09/02/87	EP				
,	V	0 270 356 A2	12/02/87	EP				
	V	0 258 016 A1	03/02/88	EP				
	~	0 258 016 BI	03/02/88	EP				
	1	0 434 616 A1	06/26/91	EP (w/Abstract)				
	V	0 434 616 B1	06/26/91	EP		Ì		
	~	0 429 234 A2	05/29/91	EP				
	~	0 429 234 A3	05/29/91	EP				
	~	0 429 234 B1	05/29/91	EP				
	~	6-242273	09/02/94	JP (w/Abstract)				
	~	91/00915	01/24/91	wo				
•	~	91/07487	05/30/91	wo				
	~	93/07465	04/15/93	wo				
	V	98/03267	01/29/98	wo	1			
	V	98/56894	12/17/98	wo	1			

EXAMINER	Date Considered	
*Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.		

INFORMATION	Atty. Docket No.: 110.00500104	Serial No.: 10/809,660	
DISCLOSURE STATEMENT	Applicants: Pui et al.	Confirmation No.: 7495	
SIATEMENT	Application Filing Date: March 25, 2004	Group: 1762	
	Information Disclosure Statement mailed:	September 10, 2004	

1	99/03517	01/28/99	wo	
1	99/30812	06/24/99	wo	
V	99/30835	06/24/99	wo	
V	99/31019	06/24/99	wo	COPY
1	01/087491 A1	11/22/01	wo	
V	03/082363 A1	10/09/03	wo	
V	04/047882 A2	06/10/04	wo	
V	04/047882 A3	06/10/04	wo	

OTHER DOCUMENTS (Including Authors, Title, Date, Pertinent Papers, etc.)

Examiner Initial	Copy Enclosed	Document Description
	-	Adachi et al., "High-efficiency unipolar aerosol charger using a radioactive alpha source," Aerosol Science, Industry Health and Environment, Masuda and Takahashi, eds., Pergamon Press, NY, 1990; 439-441.
	~	Adachi et al., "Unipolar and Bipolar Diffusion Charging of Ultrafine Aerosol Particles," J. Aerosol Sci., 1985; 16(2):109-123.
·	~	Büscher et al., "Performance of a unipolar 'square wave' diffusion charger with variable nt-product," J. Aerosol Sci., 1994; 25(4) 651-663.
	~	Chen et al., "Design and Evaluation of a Nanometer Aerosol Differential Mobility Analyzer (Nano-DMA)," J. Aerosol Sci., 1998; 29(5/6):497-509.
	~	Chen et al., "Electrospraying of Conducting Liquids for Monodisperse Aerosol Generation in the 4 nm to 1.8 µm Diameter Range," J. Aerosol Sci., 1995; 26(6):963-977.
	V	Chen et al., "Experimental Investigation of Scaling Laws for Electrospraying: Dielectric Constant Effect," Aerosol Science and Technology, 1997; 27(3):367-380.
	V	Fuchs, "On the Stationary Charge Distribution on Aerosol Particles in a Bipolar Ionic Atmosphere," Geodis: Pura. Appl., 1963; 56:185-193.
	V	Ganan-Calvo, "Generation of Steady Liquid Microthreads and Micron-Sized Monodisperse Sprays in Gas Streams," Phys. Rev. Lett., 1998; 80(2):285-288.

EXAMINER	Date Considered
*Examiner: Initial if citation considered, whether or no conformance and not considered. Include copy of this l	of citation is in conformance with MPEP 609; Draw line through citation if not inform with next communication to applicant.

INFORMATION	Atty. Docket No.: 110.00500104	Serial No.: 10/809,660	
DISCLOSURE STATEMENT	Applicants: Pui et al.	Confirmation No.: 7495	
DIAIRIMENT	Application Filing Date: March 25, 2004	Group: 1762	
<u>.</u>	Information Disclosure Statement mailed:	September 10, 2004	

Examiner Initial	Copy Euclosed	Document Description		
	~	Ganan-Calvo, "New Microfluidic Technologies to Generate Respirate Aerosofs for Medical Application," J. of Aerosol Sci., 1999; 30(Suppl. 1):S541-S542.		
	V	Hoppel et al., "The Nonequililbrium Character of the Aerosol Charge Distribution Produced by Neutralizers," Aerosol Sci. & Technol., 1990; 12:471-496.		
	V	Liu et al., "On unipolar diffision charging of aerosol particles in the continuum regime," J. Colloid Interface Sci., 1977; 58:142-149.		
	V	"Minnesota Nanotechnology Summit: Opportunities and Challenges," Final Program, Mar. 17, 2000, Minneapolis, MN.		
	>	Product Literature, BINKS Electrostatic spray painting equipment, 7 pgs, No Date Provided.		
	'	Pui et al., "Nanometer Particles: A New Frontier For Multidisciplinary Research," J. Aerosol Sci., 1997; 28(4) 539-544.		
	V	Pui et al., "Unipolar Diffusion Charging Ultrafine Aerosols," Aerosol Sci. Techn., 1988; 8:173-187.		
	V.	Romay et al., "Free electron charging of ultrafine aerosol particles," J. Aerosol Sci., 1992; 23(7):679-692.		
	V	Romay et al., "On the combination coefficient of positive ions with ultrafine neutral particles in the transition and free-molecule regimes," Aerosol Sci. Techn., 1992; 17:134-147.		
	V	Romay et al., "Unipolar Diffusion Charging of Aerosol Particles at Low Pressure," Aerosol Sci. Techn., 1991; 15:60-68.		
	V	Rulison et al., "Scale-up of electrospray atomization using linear arrays of Taylor cones," Rev. of Sci. Instrum., American Institute of Physics, New York, 1993; 64(3):683-686.		
	V	Songstad et al, "Advances in alternative DNA delivery techniques," Plant Cell, Tissue and Organ Culture, 1995; 40:1-15.		
	~	Wiedensohler et al., "A novel unipolar charger for ultrafine aerosol particles with minimal particles losses," J. Aerosol Sci., 1994; 25(4):639-650.		

EXAMINER	Date Considered
*Examiner: Initial if citation considered, whether or not citation is in conformance and not considered. Include copy of this form with next co	onformance with MPEP 609: Draw line through citation if not in omnunication to applicant.